

## ABSTRACT OF THE DISCLOSURE

A receiving unit of a receiving device receives a signal arriving thereto through a transmission path as a reception signal. A delay unit outputs a delay signal obtained by delaying the reception signal by a predetermined delay time. An estimation unit  
5 estimates a transmission path characteristic. An equalizer/demodulator compensates for the delay signal with the transmission path characteristic, demodulates the compensation result, and outputs the demodulation result as a transmission signal. A replica unit compensates for the reception signal with the transmission path characteristic, demodulates the compensation result, modulates the demodulation result, and outputs the  
10 modulation result as a replica signal. The estimation unit estimates a transmission path characteristic by comparing the reception signal with the replica signal. The predetermined delay time is equal to or smaller than a time required for the processes by the replica unit and the estimation unit.